

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION  
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification <sup>6</sup> : <b>C12N 15/82, 15/34, 5/10, A01H 5/00</b>		A1	(11) International Publication Number: <b>WO 99/43836</b> (43) International Publication Date: 2 September 1999 (02.09.99)
(21) International Application Number: <b>PCT/GB99/00599</b> (22) International Filing Date: 26 February 1999 (26.02.99)  (30) Priority Data: 9804293.0 27 February 1998 (27.02.98) GB		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(71) Applicant (for all designated States except US): PLANT BIOSCIENCE LIMITED [GB/GB]; Norwich Research Park, Colney Lane, Norwich NR4 7UH (GB).  (72) Inventors; and (75) Inventors/Applicants (for US only): HULL, Roger [GB/GB]; 69 The Street, Costessey, Norwich, Norfolk NR8 5DD (GB). HARPER, Glyn [GB/GB]; 4 Stanton Close, Dereham, Norfolk NR19 2DZ (GB).  (74) Agents: WALTON, Séan, M. et al.; Mewburn Ellis, York House, 23 Kingsway, London WC2B 6HP (GB).		Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(54) Title: BANANA STREAK VIRUS PROMOTER AND DETECTION			
<p>The diagram illustrates the circular genome of Banana Streak Virus (BSV). The outermost layer is labeled "RNase H consensus sequence". Inside this is the "Intergenic region". The genome is divided into three open reading frames (ORF1, ORF2, and ORF3) indicated by arrows pointing clockwise. The central region contains the "tRNA<sup>met</sup> binding site" and the "35S RNA". The genome has a total length of "7.38 kbp". The innermost region is labeled "BSV". Various consensus sequences are marked around the genome: "Reverse transcriptase consensus sequence" at position 6, "Aspartic proteinase consensus sequence" at position 5, and "RNA binding site consensus sequence" at position 4. At the bottom right, it is labeled "Putative viral coat protein sequence".</p>			
(57) Abstract			
<p>Banana Streak Virus (BSV) genome has been cloned and the promoter identified. Operable linkage of the promoter to a transcribable sequence allows for transgenic expression in plants, including non-graminaceous monocots particularly <i>Musaceae</i> (<i>Musa</i> and <i>Ensete</i>) and graminaceous monocots such as rice and sugar cane. Methods for detection of BSV infection in plants are also provided.</p>			